

III. REMARKS

Claims 1-20 are pending in this application. Claims 1-11 are withdrawn from consideration. Applicants do not acquiesce in the correctness of the rejections and reserve the right to present specific arguments regarding any rejected claims not specifically addressed. Reconsideration in view of the above amendments and the following remarks is respectfully requested.

In the Office Action, claims 12 and 19-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Buskirk (US 2003/0122175); and claims 13-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buskirk in view of Wolf, *Silicon Processing for the VLSI Era*, 1990, Volume II, page 146, hereinafter “Wolf.” Applicants respectfully traverse these rejections for the reasons stated below.

With respect to independent claims 12 and 20, the claimed invention includes, *inter alia*, “the silicide section has a silicidation temperature less than a damaging temperature of the plurality of BEOL layers.” (Claim 12; similarly claimed in claim 20). Buskirk does not disclose this feature because:

1. Buskirk does not disclose a silicide section.

Buskirk does not disclose conductive lines 30a and 30b are silicides. (See paragraph 0020, Buskirk does not list any silicide as conductor 30 materials.)

2. Buskirk does not inherently include a silicidation temperature less than a damaging temperature of the plurality of BEOL layers.

MPEP stipulates that “the fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic.” (§2112 IV, emphasis in original). Rather, “[in] relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the alleged inherent characteristic necessarily flows from the teachings of the applied prior art.” (*Ex parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat App. & Inter. 1990). (Emphasis in original).

In the Office Action, the Office asserts that “[i]t is inherent that the silicide resistor had a silicidation temperature less than a damaging temperature of the plurality of BEOL layers in light of the fact that the structure is built and operates as intended, thereby meaning the BEOL layer (20) was sufficiently undamaged during the silicide formation process.” (Office Action at page 3.) (Emphasis added.) Applicants respectfully disagree because Buskirk does not necessarily include the above feature.

The logic of the Office is that because Buskirk includes a silicide formation process and the Buskirk structure “is built and operates as intended,” the BEOL layer (20) must be sufficiently undamaged during the silicide formation process. (Office Action at page 3). And because “the BEOL layer (20) was sufficiently undamaged during the silicide formation process” (id.), a silicidation temperature in Buskirk must be lower than a damaging temperature of layer 20. Applicants respectfully disagree. First, Buskirk does not disclose that the structure can be built and operate as intended, if a silicide formation process is included. Buskirk does not disclose a silicide section. Even if conductive lines 30a and 30b were silicide, assumed for sake of argumentation, they are not necessarily formed by silicidation. As such, it is not reasonable to conclude or assume that “the BEOL layer (20) was sufficiently undamaged during the silicide

formation process.” (Id.) Second, even if “the BEOL layer (20) was sufficiently undamaged during the silicide formation process” (id., emphasis added), it is not necessary that a silicidation temperature in Buskirk is lower than a damaging temperature of layer 20. Other methods may achieve a BEOL layer that is sufficiently undamaged. Please note, sufficiently undamaged is not equivalent to no damage, but a silicidation temperature lower than a damaging temperature of a BEOL layer will cause no damage. As such, the “determination” of inherency based on the above reasoning/logic is defective because it is not based on fact and/or technical reasoning as required by law.

In view of the foregoing, the Office does not establish an inherent teaching of the above feature in Buskirk.

In view of the foregoing, claims 12 and 20 are allowable over the cited prior art. The dependent claims are allowable for the same reasons, as well as for their own additional features. Accordingly, Applicants respectfully request withdrawal of the rejections.

Applicants respectfully submit that the application is in condition for allowance. Should the Examiner believe that anything further is necessary to place the application in better condition for allowance, the Examiner is requested to contact Applicants' undersigned attorney at the telephone number listed below.

Respectfully submitted,



Spencer K. Warnick
Reg. No. 40,398

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Hoffman, Warnick & D'Alessandro LLC
75 State Street, 14th Floor
Albany, New York 12207
(518) 449-0044
(518) 449-0047 (fax)